

ABSTRACT

A medium access control (MAC) layer for a node of a wireless local area network, which may be used in embedded, host and stand-alone applications, includes a hardware layer and a software layer. The hardware layer is configured to perform time-critical tasks and the software layer is configured to perform non-time critical tasks. The software layer includes multiple modules, such as one or more of a host communication agent, a bridging layer, a network management support module, a SBM-to-TAME conversion module, and a rate estimation module. Further, the software layer acts as the source of and the destination of MAC Service Data Units and is configured as a hierarchical structure in which functional unit blocks for associated elements of the hardware layer communicate with an application layer through respective device drivers and managers. Device drivers and managers communicate through a device manager layer.